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HIGH-REFLECTANCE PAINT FOR HIGH-  
INTENSITY OPTICAL APPLICATIONS

**Abstract of the Disclosure**

Many commercial radiant energy processing systems, such as luminaires and light detectors, require highly efficient diffusely reflective surfaces that can withstand high temperatures. As disclosed herein, a reflector for such a device is constructed of a substrate with a reflective coating, for example painted onto one or more surfaces of the substrate. The  
5 coating material comprises a zinc oxide pigment, preferably an uncalcined zinc oxide together with a small amount of a dispersing agent. The pigment and water are mixed together with an alkali metal silicate vehicle-binder (preferably a potassium silicate), for example, in a sheer mixer. The resulting material can be painted onto the desired surface, for example by spraying, spot-brushing or dipping.